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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS E. COVERSTONE

Appeal 2008-3197
Application 10/020,094
Technology Center 2600

Decided: August 25, 2008

Before JOSEPH F. RUGGIERO, SCOTT R. BOALICK, and JOHN A.
JEFFERY, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134 from the Examiner's rejection of claims 10-47. We have jurisdiction under 35 U.S.C. § 6(b), and we heard the appeal on August 12, 2008. We affirm.

STATEMENT OF THE CASE

Appellant invented a wireless communication system that tracks the position and transactions associated with a wireless communication device and transmits targeted broadcasts based on trends determined from the obtained data.¹ Claim 10 is illustrative:

10. A wireless communication system that is used with a wireless communication device and a position location system, the wireless communication device being capable of communicating with the position location system, the wireless communication system comprising:

a memory device for storing position location data for the wireless communication device;

a processor for determining trends in the position location data by recalling stored information from the memory device and processing the recalled information; and

a transmitter for transmitting targeted broadcasts to the wireless communication device at least based on the determined trends.

The Examiner relies on the following prior art references to show unpatentability:

Marlevi	US 5,572,221	Nov. 5, 1996
Ito	US 5,999,126	Dec. 7, 1999

1. Claims 10-24, 26-37, and 39-47 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ito.²

¹ See generally Spec. 3-4.

² Although the Briefs incorrectly state that all claims were rejected under § 102 as being anticipated by Ito (App. Br. 11; Reply Br. 3), the Examiner Footnote continued on the next page.

2. Claims 25 and 38 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Ito and Marlevi.

Rather than repeat the arguments of Appellant or the Examiner, we refer to the Briefs and the Answer³ for their respective details. In this decision, we have considered only those arguments actually made by Appellant. Arguments which Appellant could have made but did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

THE ANTICIPATION REJECTION

We first consider the Examiner's anticipation rejection of claims 10-24, 26-37, and 39-47 over Ito (Ans. 3-12).

Claims 10, 12, and 13

Regarding representative claim 10,⁴ Appellant argues that while Ito's system can estimate an automobile's current location based on an extrapolation between two previously-known locations, Ito does not disclose a processor for determining position location trends as claimed. Appellant also contends that Ito fails to disclose a transmitter for transmitting targeted broadcasts based on position location trends. Rather, Appellant argues, Ito

rejected claims 10-24, 26-37, and 39-47 as being anticipated by Ito (Ans. 3). Claims 25 and 38 were rejected under § 103 over Ito and Marlevi (Ans. 13).

³ We refer to the most recent (1) Brief filed December 18, 2006; (2) Answer mailed July 9, 2007; and (3) Reply Brief filed September 5, 2007.

⁴ Appellant argues claims 10, 12, and 13 together as a group. *See* App. Br. 12. Accordingly, we select claim 10 as representative. *See* 37 C.F.R. § 41.37(c)(1)(vii).

teaches that automobiles can receive a service signal transmitted from a PHS⁵ base station. Appellant emphasizes that this service signal is not a targeted broadcast since it is not sent to any specific audience, but rather is a “mass signal” that can be received by anyone within range that is capable of receiving such a signal (App. Br. 12; Reply Br. 4-5).

The Examiner responds that Ito’s comparing two previously-known locations to estimate a third location is a position location trend. The Examiner further notes that since the information broadcast by the PHS base station is location-specific and relevant only to users near a particular location (e.g., traffic information), then such a broadcast fully meets a “targeted broadcast” as claimed (Ans. 14-15).

ISSUE

The issue before us, then, is whether Appellant has shown that the Examiner erred in finding that Ito anticipates the disputed limitations of claim 10, namely (1) a processor for determining position location trends, and (2) a transmitter for transmitting targeted broadcasts based on position location trends, as claimed. For the following reasons, we find no such error has been shown.

FINDINGS OF FACT

The following Findings of Fact (FF) are supported by a preponderance of the evidence on the record before us:

⁵ Ito indicates that PHS stands for “Personal Handyphone System” (Ito, col. 4, ll. 4-5).

1. Ito discloses a system for providing information to vehicles (e.g., navigation information) that measures vehicle position using (1) a Global Positioning Satellite (GPS)-based system, and (2) a PHS mobile telephone system (Ito, Title; Abstract; col. 1, ll. 11-22; col. 4, ll. 1-5; Fig. 1).

2. By employing both types of position measurement techniques, accurate position measurements can be performed not only in areas where radio waves from satellites can be effectively received (e.g., suburban areas), but also areas where such radio waves would otherwise be blocked (e.g., urban areas). As such, the system takes advantage of the inherent capabilities of GPS and the PHS systems depending on the particular conditions involved (Ito, col. 4, ll. 6-37; col. 13, ll. 15-24; Figs. 2, 3).

3. PHS base stations 3a-3c are installed at intervals of about 100 meters such that each forms a cell of narrow range. Narrower cells, however, can be formed at intervals of 10 meters (Ito, col. 4, ll. 28-37).

4. A PHS base station transmits an ID signal indicative of its own position (Ito, col. 4, ll. 38-39).

5. A current vehicle position can be estimated from a previous history. For example, if one position (c2) is known within Region 1, another position (c1) can be determined via a particular base station ID within Region 1A. But if that particular base station ID can no longer be decoded satisfactorily, then the current position is estimated to be another position within Region 1 (the position (c3)) (Ito, col. 10, ll. 29-39; Fig. 11C).

6. A PHS base station transmits a service signal that can include, among other things, information pertaining to traffic, weather, news, advertisements/events, and routing (Ito, col. 10, l. 44 – col. 11, l. 39; Fig. 12 (Steps 132-141)).

7. If the service signal contains traffic information (e.g., information pertaining to traffic jams, closed streets, construction, etc.), then this information 13b is displayed on the screen of the vehicle's display unit 13 either as text or graphically (Ito, col. 10, ll. 49-65; Fig. 12 (Steps 132-133), Fig. 13A).

8. If the service signal contains weather information, this information 13c is likewise displayed on the display unit (Ito, col. 10, ll. 66 – col. 11, l. 5; Fig. 12 (Steps 134-135), Fig. 13B). Similarly, if the service signal contains either (1) advertisement/event information or (2) routing information, this information 13e or 13f is likewise displayed on the display unit (Ito, col. 11, ll. 14-39, l. 5; Fig. 12 (Steps 138-141), Fig. 13D).

PRINCIPLES OF LAW

Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. *RCA Corp. v. Appl. Dig. Data Sys., Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984); *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554 (Fed. Cir. 1983).

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

If the Examiner's burden is met, the burden then shifts to the Appellant to overcome the prima facie case with argument and/or evidence.

Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

ANALYSIS

Based on the functionality of Ito noted in the Findings of Fact section above, we find no error in the Examiner's reliance on this reference as meeting the limitations of representative claim 10.

First, we agree with the Examiner that the ability of Ito's system to estimate current vehicle position based on previously-known positions (FF 5) fully meets a processor that determines trends in the position location data as claimed. Significantly, positions c1-c3 in Figure 11C are within Region 1. As such, both previously-known positions are in Region 1—a trend that is based on the relative location of these positions. Therefore, estimating that the current position (position (c3)) is likewise within Region 1 is consistent with this trend.

Second, while Appellant is correct that a broadcast from a PHS base station in Ito can be received by multiple recipients, such reception is not dispositive as to whether such a broadcast is a “targeted” broadcast giving the term its broadest reasonable interpretation. Significantly, the term “targeted broadcast” is not specifically defined in the Specification—a fact admitted at the oral hearing. Moreover, we note that the fact that the service signal of Ito can only be received by those recipients capable of receiving such a signal (i.e., those recipients within range of a base station and having the appropriate receiver) fully meets a “targeted broadcast.”

In any event, as the Examiner indicates, the information broadcast by the PHS base station is *location-specific* and would therefore be relevant to only those recipients at or near a particular location—a location that can be determined based on a “trend” in position data as we noted above. For this reason alone, this broadcast fully meets a “targeted broadcast.” That the broadcast can be limited to certain types of location-specific information (traffic, weather, advertisements, events, or routing) (FF 6-8) only reinforces our conclusion that the broadcast is a “targeted” broadcast.

Not only would this traffic and weather information pertain to a particular location, but also advertisements and events as well as routing information (FF 8) likewise would constitute location-specific information. First, Ito notes that advertising/event information can include, among other things, tourism information or information on events at stores *near the current position* (Ito, col. 11, ll. 15-18; emphasis added).

Second, routing information is based on current position information and destination information transmitted from the apparatus in the vehicle to the PHS base station. After certain routing computations are performed, the base station returns the information on the computed route to the apparatus in the vehicle (Ito, col. 11, ll. 28-39). Because this information is tailored to that particular user’s current position and destination, the computed route information sent to that recipient would therefore constitute a “targeted broadcast.” Moreover, this broadcast is based, at least in part, on the current position of the vehicle which, as we indicated previously, is likewise based on trends in the position location data.

For the foregoing reasons, Appellant has not persuaded us of error in the Examiner’s anticipation rejection of claim 10, or claims 12 and 13 which

fall with claim 10. Accordingly, we will sustain the Examiner's rejection of those claims.

Claim 11

Claim 11 differs from claim 10 in calling for the stored data from which the trends are determined to be *transaction* data instead of *position location* data. Appellant argues that Ito does not disclose (1) a memory device for storing transaction data; (2) a processor for determining trends in the transaction data; and (3) a targeted broadcast based on the calculated transaction trends. Appellant emphasizes that the Examiner's construction of "transaction data" is unreasonable in light of the term's description in the Specification (App. Br. 12-13; Reply Br. 5-6).

The Examiner takes the position that Ito's estimation of current vehicle position based on previously-known positions results from communication between the mobile station and the system and therefore meets "transaction data" under its broadest reasonable interpretation. The Examiner also reiterates that Ito likewise discloses a targeted broadcast based on trends in this "transaction data" (Ans. 15-16).

We find no error in the Examiner's rejection of claim 11. Appellant's arguments pertaining to the Examiner's construction of "transaction data" are simply not commensurate with the scope of the limitation. Significantly, nothing in the Specification expressly or implicitly defines the term "transaction data" to preclude the position data used for estimation in Ito. As the Examiner indicates, the scope and breadth of the term "transaction data" does not preclude the position data that is produced resulting from interactions between the wireless device in the vehicle and the

system. These interactions, in our view, reasonably constitute “transactions” at least with respect to the exchange of data between the entities.

Thus, the fact that Ito’s system can estimate the current position of the vehicle based, at least in part, on previously-known position data (FF 5) obtained from these transactions reasonably constitutes “transaction data” under the term’s broadest reasonable interpretation. And, as we indicated previously, we find that Ito’s system reasonably determines trends with respect to such data.

We find that Ito also discloses transmitting targeted broadcasts based, at least in part, on these trends. Our previous discussion pertaining to targeted broadcasts in Ito applies equally here and we therefore incorporate that discussion by reference.

We further note that the interactive services provided to a particular user described in Ito that provide customized information responsive to a user’s particular selection from a menu (e.g., information tailored to a particular music selection) (Ito, col. 11, l. 44 – col. 12, l. 21; Figs. 14, 15A, 15B) likewise fully meets a “targeted broadcast” since the resulting transmission is targeted to that particular user. Moreover, this targeted broadcast is based, at least in part, on trends in transaction data (i.e., the data corresponding to the user’s selections).

For the foregoing reasons, Appellant has not persuaded us of error in the Examiner’s anticipation rejection of claim 11. Accordingly, we will sustain the Examiner’s rejection of that claim.

Claims 14-17

Regarding representative claim 14,⁶ Appellant essentially reiterates the previous arguments as they pertain to Ito's alleged failure to disclose a transmitter for transmitting targeted advertisement broadcasts based on processed position location data (App. Br. 13; Reply Br. 5). The Examiner, likewise, reiterates the previously-stated position regarding Ito (Ans. 16-17).

We will sustain the Examiner's rejection of claim 14 essentially for the reasons previously discussed with respect to claim 1. We further note that Ito also transmits, among other things, advertising/event information (FF 8) that can include tourism information or information on events at stores *near the current position* (Ito, col. 11, ll. 15-18; emphasis added).

We add that Appellant's arguments are not commensurate with the scope of claim 14 for yet another reason, namely that the "stored information" in claim 14 on which the targeted information is based need not be the recited "position location data." Nothing in the claim requires that the "stored information" be the same as the stored "position location data."

Lastly, we note that the interactive services provided to a particular user described in Ito that provide customized information responsive to a user's particular selection from a menu (e.g., information tailored to a particular music selection) (Ito, col. 11, l. 44 – col. 12, l. 21; Figs. 14, 15A, 15B) likewise fully meets a "targeted advertisement broadcast" since the resulting transmission is targeted to that particular user and effectively

⁶ Appellant argues claims 14-17 together as a group. See App. Br. 13. Accordingly, we select claim 14 as representative.

promotes that particular content associated with the user's request. For example, the information broadcast to a particular user responsive to that user's selecting a title from the musical selections comprising the "Best Ten of This Week" list (Ito, col. 11, l. 66 – col. 12, l. 8) effectively promotes or advertises that particular piece of music. As such, this broadcast also fully meets a "targeted advertisement broadcast."

For the foregoing reasons, Appellant has not persuaded us of error in the Examiner's anticipation rejection of claim 14. Accordingly, we will sustain the Examiner's rejection of that claim, and claims 15-17 which fall with claim 14.

Claims 18-21

We will also sustain the Examiner's rejection of claim 18 essentially for the reasons previously indicated with respect to claims 1 and 14. Our previous discussion pertaining to those claims applies equally here and we therefore incorporate that discussion by reference.

For the foregoing reasons, Appellant has not persuaded us of error in the Examiner's anticipation rejection of claim 18. Accordingly, we will sustain the Examiner's rejection of that claim, and claims 19-21 which fall with claim 18.

Claims 22-24, 26-37, and 39-47

We will also sustain the Examiner's rejection of independent claim 22 that calls for, in pertinent part, a processor for selecting a targeted broadcast audience, and a transmitter for transmitting a targeted broadcast to the

targeted broadcast audience. Independent method claim 35 recites commensurate limitations.

For the reasons indicated previously, we find that Ito's system effectively (1) selects a targeted broadcast audience based, at least in part, on the recipients' location, and (2) transmits a targeted broadcast to that audience. Our previous discussion pertaining to claim 1 applies equally here and we therefore incorporate that discussion by reference.

For the foregoing reasons, Appellant has not persuaded us of error in the Examiner's anticipation rejection of independent claims 22 and 35. Accordingly, we will sustain the Examiner's rejection of those claims, and claims 23, 24, 26-34, 36, 37, and 39-47 which were not separately argued with particularity.

THE OBVIOUSNESS REJECTION

We will also sustain the Examiner's obviousness rejection of claims 25 and 38 over the collective teachings of Ito and Marlevi (Ans. 13-14). Appellant did not present any arguments pertaining to this rejection, let alone particularly point out errors in the Examiner's reasoning to persuasively rebut the Examiner's prima facie case of obviousness. The rejection of claims 25 and 38 is therefore sustained.

CONCLUSIONS OF LAW

Appellant has not shown that the Examiner erred in finding that the disclosure of Ito anticipates claims 10-24, 26-37, and 39-47 under § 102. Also, Appellant has not shown that the Examiner erred in rejecting claims 25 and 38 over the collective teachings of Ito and Marlevi under

§ 103.

DECISION

We have sustained the Examiner's rejections with respect to all claims on appeal. Therefore, the Examiner's decision rejecting claims 10-47 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

gvw

HOUSTON OFFICE OF
NOVAK DRUCE AND QUIGG LLP
1000 LOUISIANA STREET
53RD FLOOR
HOUSTON, TX 77002